

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: 13/4/12

Work Order: <u>93331</u>	DISPOSITION	AGAINST DEPARTMENT/PROCESS					
Part No. <u>647.2510</u>	Rework <input type="checkbox"/> Scrap <input checked="" type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input checked="" type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>		
NCR No. <u>13.2486</u>							

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input checked="" type="checkbox"/>	6			.250 hole drilled off center unacceptable amounts.	(DAS 16 9-09)	Drill part before the workpiece is extended.	1	13-3-27	(DAS 16 9-09)
Equip/Tooling <input type="checkbox"/>	2			x 3		Scrap + replace	1		
Operator <input type="checkbox"/>	3			Root cause: trial and error programming for deep drilling.	QS2042 13/03/26	M	1	13-3-27	QS2042 13/03/26
Material <input type="checkbox"/>	4	110	3	P.L. need different sequence of operations			1		
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

FAULT CATEGORY

Landing Gear	General			
Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>
Centre Not Concentric to O/S <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>
Cracks <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>
Crushed/Crimped. <input type="checkbox"/>	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>
Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>	
Heat Treat <input type="checkbox"/>	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>	
Inspection Strip in Tube <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	
Ripples in Bend <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>		
Torque Waves in Extrusion <input type="checkbox"/>	Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>		
Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>		
Wave/Twist in Tube <input type="checkbox"/>	Folio <input checked="" type="checkbox"/>	Outside Dimensions <input type="checkbox"/>		

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Part No. _____		Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>									
NCR No. _____		Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>									
		Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>									
		Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>										
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector						
Doc/Data															
Equip/Tooling															
Operator															
Material															
Setup															
Other															
Process															
Supplier															
Training															
Unapproved															
FAULT CATEGORY															
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio		<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled			
														<input type="checkbox"/> Other	

Work Order ID 93331

93331

Page 3

November-15-12 11:41:42 AM

Item ID: 647.2510

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Sleeve

Start Date: 11/15/12 Start Qty: 12.00

12

Cust Item ID:

Required Date: 12/07/12 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

170

170

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

DAS
21
B4,9

12

180

180

Packaging

Packaging

Identify as per dwg & Stock Location:

0.00

S8530

0.00

13/3/10 (12)

190

190

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

0.00

13/4/10 (10)

13/04/10

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Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear				General						
				Bending <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>			
Centre Not Concentric to O/S <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>							
Cracks <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>							
Crushed/Crimped. <input type="checkbox"/>	Burrs <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>							
Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Part Moved <input type="checkbox"/>								
Heat Treat <input type="checkbox"/>	Countersink <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>								
Inspection Strip in Tube <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>								
Ripples in Bend <input type="checkbox"/>	Drill Holes <input type="checkbox"/>		Other <input type="checkbox"/>							
Torque Waves in Extrusion <input type="checkbox"/>	Drawing <input type="checkbox"/>									
Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>									
Wave/Twist in Tube <input type="checkbox"/>	Folio <input type="checkbox"/>									

Picklist Print

November-15-12 11:41:42 AM

Page 1

Work Order ID: 93331

Parent Item: 647.2510

Parent Item Name: Sleeve

Start Date: 11/15/12

Required Date: 12/07/12

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP REV:A NEW ISSUE 12-10-22 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M174PH-H1150R1.000 17-4 SS H1150 ROUND BAR 1.000		Purchased	No			.	f	11.8000		3.9996			

Location	Loc Qty	Loc Code
MAT 123450 ✓	11.8 11.8	2-333 13-3-24 DAS 04 9-89

17-4 SS H1150 1.00

121280

25ft

120767

NCR: Yes / No

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Part No. _____	Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Machining <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
NCR No. _____	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
Work Order Update <input type="checkbox"/>							Other <input type="checkbox"/>			
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>										
Equip/Tooling <input type="checkbox"/>										
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Setup <input type="checkbox"/>										
Other <input type="checkbox"/>										
Process <input type="checkbox"/>										
Supplier <input type="checkbox"/>										
Training <input type="checkbox"/>										
Unapproved <input type="checkbox"/>										
FAULT CATEGORY										
Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence Wave/Twist in Tube				General						
				<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced			
				<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure			
				<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld			
				<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled			
				<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved				
				<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Positioned Wrong				
				<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge				
				<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset					
				<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration					
				<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence					
				<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions					

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02935				SHEET 1 OF 1	
	DWG NO. 647.2500	REV: NC	PREPARED BY N.CAP	DATE: 07/14/10		EFFECT ON DWG <input type="checkbox"/> INC <input checked="" type="checkbox"/> UNINC
	DWG TITLE: SKID SLEEVE					
	APPROVED BY:	ENGR: <i>J.P. Bravu</i>	MFG: <i>David Bush</i>	QC: <i>Marcel Lymar</i>	EFF: <i>Current Order</i>	
	TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE		REASON: REVISED PART MATERIAL			

SHEET 1, NOTES:

NOTES:



1 MATERIAL: STAINLESS STEEL 17-4 PH, CONDITION: H1150



2 FINISH: PASSIVATE PER MIL-S-5002 TYPE 6

3. DEBURR AND BREAK ALL SHARP EDGES
4. IDENTIFY IAW MPP-120

SHOP COPY

RETURN TO

ENGINEER

UNCONTROLLED

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

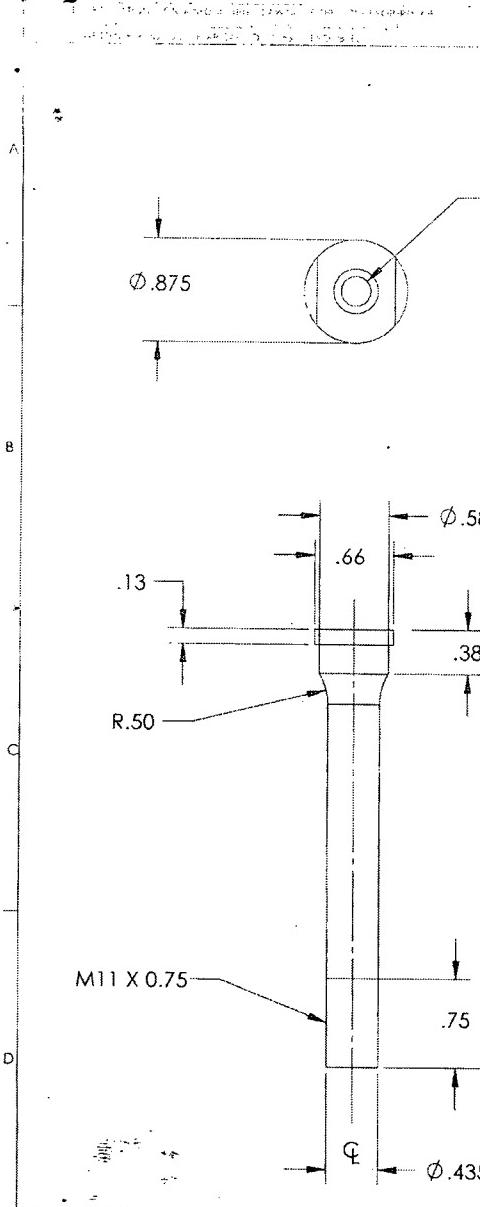
NO. 9331_MLS

12-11-16

IS

F/N	TC	PART NUMBER	QTY	DESCRIPTION		MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:		<input type="checkbox"/> MDL	<input type="checkbox"/> INSTALL INSTRUC	<input type="checkbox"/> ICA	<input type="checkbox"/> BOM	<input type="checkbox"/> CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	<input type="checkbox"/> DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

93331



647.2510



NOTES:

- 1 MATERIAL: STAINLESS STEEL AM-355 PER AMS-5743, CONDITION: SCT1000
- 2 FINISH: PASSIVATE PER MIL-S-5002 TYPE 6
- 3. DEBURR AND BREAK ALL SHARP EDGES
- 4. IDENTIFY IAW MPP-120

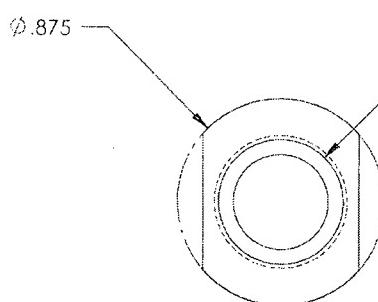
UNINCORPORATED ECN(s)

07935

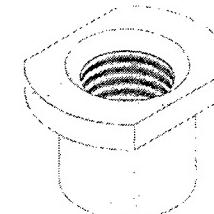
		647.2511	NUT		
	FIND #	647.2510	SLEEVE		
QTY		PART #	DESCRIPTION	MATL	SPEC.
PARTS LIST					
NEXT ASSY (S)	647.1300	ORIGINAL DATE 07/04/08 DR. 1. CAPS/NUT P. PKGD P. PKGD CONTRACT NO.	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300 SKID SLEEVE		
DRAWINGS APPROVAL					
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE: 1. PLACE DECIMALS 1.D 2. PLACE DECIMALS 3.D ANGLES 1.D SCALE NONE					
REV. N/C SHEET 1 OF 2					

351

973331



Ø.401 DRILL & TAP M11 X .075 THRU
Ø.53 X 90°



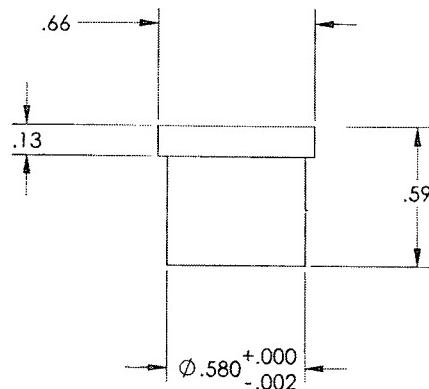
647.2511

A

B

C

D



ORIGINAL DATE	08/09/02	REVISION	
DRAWN BY	J GARDNER	SUPERVISED BY	P BRAVO
DESIGN APPROVAL	P BRAVO		
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE INCHES 2 PLACES DECIMALS ± ANGLES ± 2°			
REV	N/C	CAGE CODE	6 07146
DOC. NO.	647.2500		
SCALE	None	SHEET	2 OF 2

DART AEROSPACE LTD	Work Order:	93331
Description:	Part Number:	647.2510
Inspection Dwg:	Rev:	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

DAS

Measured by:	<u>JK</u>	04 9-89	Audited by:	<u>JL</u>	Preliminary Approval:
Date:	15-3-22	- 24	Date:	13-3-27	Date:

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15

Jean-Luc Menard

From: Pablo Bravo
Sent: Monday, March 25, 2013 3:40 PM
To: Jean-Luc Menard
Cc: Brandon Peters
Subject: RE: 647.2510

JL,

This should be fine. Let's leave it as a deviation rather than an alternate though. H900 is okay, but H1150 is better since I believe it's less brittle.

Pablo

From: Jean-Luc Menard
Sent: Monday, March 25, 2013 6:10 AM
To: Pablo Bravo
Subject: 647.2510

Good Morning Pablo,
647.2510 calls for 17-4 h1150, The guys mixed up the material and used 17-4 PH900.
Is this deviation acceptable?
Let me know,

JL

Jean-Luc Menard
Production Engineering Coordinator

DART AEROSPACE
T 1 613 632-5200 > 227
F 1 613 632-5246
1 800 556-4166
www.dartaerospace.com





A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 62301

Date: 08-Apr-13

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms	Ship Via
Quantity	Description
1 lot	Part: ASST 13 PCS 647.2511 12 PCS 647.2510 PASSIVATE PER QQ-P-35 MINIMUM RUN Job: 20130198
Rev: PO: 19460 Line:	
Certificate of Conformance A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.	
ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY	
DATE: <u>8/9/13</u>	
CERTIFIED SIGNATURE: <u>[Signature]</u>	
RECEIVER SIGNATURE: <u> </u>	